

GA-ASI Special Process List

Nadcap Commodity	Nadcap Checklist	Special Process Category	Spec Number	Code	Reference European Specs	Spec Name	Comments
Chemical Processing (Checklists: AC7108 + AC7108/4 +)	AC7108/8	Anodize	MIL-PRF-8625	1	BSI BS EN 2284 - Sulfuric Anodize BSI BS ISO 10074 - Hard Anodize	Anodic Coatings for Aluminum and Aluminum Alloys - Sulfuric Anodize	
			AMS2488	1		Anodic Treatment - Titanium and Titanium Alloys Solutin pH 13 or Higher	
			AMS2482	1		Hard Anodic Coating on Aluminum Alloys Polytetrafluoroethylene (PTFE) Impregnated	
	AC7108/3	Metal Bond Surface Prep	ASTM D3933	2		Standard Guide for Preparation of Aluminum Surfaces for Structural Adhesive Bonding (Phosphoric Acid Anodizing)	
	AC7108/11	Conversion Coating	MIL-DTL-5541	1		Chemical Conversion Coatings on Aluminum and Aluminum Alloys	
			MIL-DTL-13924	1		Coating, Oxide, Black, for Ferrous Metals	
			TT-C-490	1		Chemical Conversion Coatings and Pretreatments for Metallic Substrates	
	AC7108/12	Chemical Cleaning	ASTM B600	1		Standard Guide for Descaling and Cleaning Titanium and Titanium Alloy Surfaces	
			ASTM A967	1		Standard Specification for Chemical Passivation Treatments for Stainless Steel Parts	
		Passivation	ASTM A380	1		Standard Practice for Cleaning, Descaling, and Passivation of Stainless Steel Parts, Equipment and Systems	GE Engine Tube Drawings
			AMS2700	1		Passivation of Corrosion Resistant Steels	
	AC7108/9	ElectroPlating	ASTM B912	1		Passivation of Stainless Steep Alloys through Electropolishing	
			AMS2460	1		Plating, Chromium	
			AMS-QQ-C-320	1		Chromium Plating (Electrodeposited)	
			AMS2403	1		Plating, Nickel General Purpose	
			AMS-QQ-N-290	1		Nickel Plating (Electrodeposited)	
			AMS2418	1		Plating, Copper	
			ASTM B545	1		Standard Specification for Electrodeposited Coatings of Tin	
			MIL-T-10727	1		Tin Plating: Electrodeposited or Hot-Dipped, for Ferrous and Nonferrous Metals	
			MIL-G-45204	1		Gold Plating, Electrodeposited	
			ASTM B700	1		Standard Specification for Electrodeposited Coatings of Silver	
			AMS-QQ-S-365	1		Silver Plating, Electrodeposited, General Requirements	
			ASTM B633	1		Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel	
			AMS-QQ-Z-325	1		Zinc Coating, Electrodeposited	
			ASTM F1941	1		Standard Specification for Electrodeposited Coatings on Mechanical Fasteners	
	AMS2417	1		Plating, Zinc-Nickel Alloy			
	AMS2461	1		Plating, Zinc-Nickel Alloy (12 to 16% Ni)			
AMS-QQ-P-416	1		Plating, Cadmium (Electrodeposited)				
AC7108/10	Electroless Plating	AMS2404	1		Plating, Electroless Nickel		
AC7108/1	Paint	MIL-DTL-18264	1		Finishes, Organic, Weapons Systems, Application and Control of		
		MIL-PRF-22750	1		Coating: Epoxy, High-Solids		
		MIL-PRF-23377	1		Primer Coatings: Epoxy, High-Solids		
		MIL-PRF-85285	1		Top Coat, Aircraft and Support Equipment		
		UBC90992	2		Fairing, Primer and Topcoat Application		
		UBC90990	2		Application of Polyurethane Rain Erosion Coating		
AC7108/7	Dry Film Lubricant	MIL-PRF-46010	1		Lubricant, Solid Film, Heat Cured, Corrosion Inhibiting (S-1738)		
Heat Treatment (Checklists: AC7102 + AC7102/5 + AC7102/8 +)	AC7102/2	Heat Treat	MIL-DTL-83488	1		Coating, Aluminum, High Purity (Ion Vapor Deposition (IVD))	
			AMS2770	1		Heat Treatment of Wrought Aluminum Alloy Parts	
			AMS2771	1		Heat Treatment of Aluminum Alloy Castings	
			AMS2759	1		Heat Treatment Precipitation-Hardening Corrosion-Resistant, Maraging, and Secondary Hardening Steel Parts	
			AMS2769	1		Heat Treatment of Parts in a Vacuum	
			AMS2801	1		Heat Treatment of Titanium Alloy Parts	
			AMS-H-81200	1		Heat Treatment of Titanium and Titanium Alloys	
	AC7102/6	HIP	GPS70001	2		Material Requirements, Ti-6Al-4V ELI LPBF	
			GPS70003	2		Material Requirements, Aluminum F357 LPBF	
			AMS4992	2		Casting, Structural Investment, Titanium Alloy 6Al-4V Hot Isostatically Pressed	
	AC7102/1	Braze	AWS C3.7	2		Specification for Aluminum Brazing	
	AC7102/3	Surface Conditioning	AMS-S-6090	2		Carburizing and Heat Treatment of Carburizing Grade Steel Parts	
	Composites	AC7118	Core Processing	UBC90983	2*		Fab, Core Processing
UBC90982				2*		Fab, Cycom 5320, Sandwich	
Composites Mfg		UBC90978	2*		Wet Lam Cu Doubler, Cond, Perm		
		UBC90980	2*		Fab, Cycom 5320, Laminate		
		UBC90982	2*		Fab, Cycom 5320, Sandwich		
		UBC90985	2*		Fabrication, SQRTM, 5320-1		
		UBC90986	2*		Tencate EX1522/4581 Honeycomb Radome Structure		
UBC90988	2*		Bladder Fabrication, Cycom 5320				

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			UBC90989	2*		Fabrication, Forward and AFT Stub Spar	
			GPS60001	2*		Multi-Band Radome	
		Adhesive Bonding	UBC90666	2*		PSA & PSA Components	
			UBC90962	2*		Liquid Shim & Adhesive Bonding	
		Composites Equipment Qual	UBC90973	2*		Autoclave and Oven Certification	
			UBC90974	2*		Cure Tool Validation	
Non-Conventional Machining (Checklists: AC7116 +)	AC7116/3	Wire EDM	UBC90971	2		Process Verification, Non-Conventional Machining (NCM)	
	AC7116/4	Laser Cutting (LBM)	UBC90971	2		Process Verification, Non-Conventional Machining (NCM)	
Fabrication	N/A	SuperPlastic Forming	UBC90975	3		Super Plastic Forming, Titanium	
	AC7110/14	Additive Manufacturing	GPS70002/GPS70001/GPS70003	2*		LPBF AM, Metallic	Nadcap checklist is only for Laser and Electron Beam Metallic Powder Bed Additive Manufacturing
	N/A		UBC90970	3		3D Printed Components, Fabrication	
	N/A		GPS80000/GPS80001/GPS80002	3		LPBF AM, Plastic	
	N/A		AMS7004	3		Titanium Alloy Preforms from Plasma Arc Directed Energy Deposition Additive Manufacturing on Substrate, Ti-6Al-4V, Stress Relieved	
	N/A		AMS7005	3		Wire Fed Plasma Arc Directed Energy Deposition Additive Manufacturing Process	
Welding (Checklists: AC7110 + AC7110/12 + AC7110/13 +)	AC7110/5	Fusion Weld	AWS D17.1	2*		Specification for Fusion Welding for Aerospace Applications	TIG, MIG, EB, LBW, Plasma, etc.
	AC7110/3	Electron Beam Weld	AWS D17.1	2*		Specification for Fusion Welding for Aerospace Applications	
	AC7110/6	Laser Beam Weld	AWS D17.1	2*		Specification for Fusion Welding for Aerospace Applications	
	AC7110/4	Resistance Weld	AWS D17.2	2*		Specification for Resistance Welding for Aerospace Applications	
	AC7110/1	Braze	AWS C3.4	2		Specification for Torch Brazing	
Non-Destructive Testing (Checklists: AC7114 +)	AC7114/3	Ultrasonic	GPS90001	2*		Ultrasonic Inspection	
			UBC90999	2*		Inspect & Accept, Composite	
	AC7114/1	Penetrant	ASTM E1417	2*		Standard Practice for Liquid Penetrant Testing	
			UHK31482	2*		Cast Titanium Alloy MLG Strut NDT Criteria for MQ-9 Reaper	
	Film: AC7114/4	Radiography	ASTM E1742	2*		Standard Practice for Radiographic Examination	/4 is for film radiography only
	Digital: AC7114/6 (DDA)		UBC90999	2*		Inspect & Accept, Composite	/6 & /8 are for digital radiography (replaces /10)
	AC7114/8 (CR)		UHK31482	2*		Cast Titanium Alloy MLG Strut NDT Criteria for MQ-9 Reaper	
	AC7114/2	Magnetic Particle	ASTM E1444	2*	BSI BS EN ISO 9934-1 / -2 / -3	Standard Practice for Magnetic Particle Testing for Aerospace	
	AC7114/5	Eddy Current	ASTM E215	2*		Standard Practice for Standardizing Equipment and Electromagnetic Examination of Seamless Aluminum-Alloy Tube	
			ASTM E426	2*		Standard Practice for Electromagnetic (Eddy Current) Examination of Seamless and Welded Tubular Products, Titanium, Austenitic Stainless Steel and Similar Alloys	
			ASTM E571	2*		Standard Practice for Electromagnetic (Eddy Current) Examination of Nickel and Nickel Alloy Tubular Products	
	N/A	Infrared	GPS90002	3		Infrared Thermography	
	N/A		UBC90999	3		Inspect & Accept, Composite	
	N/A	Shearography	UBC90999	3		Inspect & Accept, Composite	
Surface Enhancement (Checklist: AC7117 +)	AC7117	Shot Peen	AMS2430	2		Shot Peening	There will be a /x checklist depending on the type of process/equipment each supplier has
	/1 - Computer Control						
	/2 - Automated Peen						
	/3 - Peen Forming						
	/4 - Flapper Peen						
	/5 - Manual Peen						
Coating (Checklists: AC7109 +)	AC7109/2	Vapor Deposited Coating	AMS2444A	2		Coating, Titanium Nitride Physical Vapor Deposition	
Electrical (Checklists: AC7119, AC7120, AC7121)		Electrical	IPC J-STD-001	***		Requirements for Soldered Electrical and Electronic Assemblies	
			IPC-A-610	***		Acceptability of Electronic Assemblies	
	AC7121, /S, /1		IPC/WHMA-A-620	***		Requirements and Acceptance for Cable and Wire Harness Assemblies	
	AC7119/2		IPC 6012	***		Qualification and Performance Specification for Rigid Printed Boards	
	AC7119		IPC-A-600 CLASS 3	***		Acceptability of Printed Boards	
	AC7120, /2, /6		IPC SM-840	***		Qualification and Performance Specification of Permanent Solder Mask and Flexible Cover Materials	
			IPC 4553	***		Specification for Immersion Silver Plating for Printed Boards	
			IPC 4552	***		Specification for Electroless Nickel/Immersion Gold (ENIG) Plating for Printed Boards	
			IPC 6013 TYPE 4, CLASS 3	***		Qualification and Performance Specification for Flexible/Rigid-Flexible Printed Boards	
			IPC CC-830, TYPE AR	***		Qualification and Performance of Electrical Insulating Compound for Printed Wiring Assemblies	
		Electrical Bonding	UBC90968	***		Electrical Bonding	

Code Legend:

- 1** Nadcap Accreditation Required - Both slash sheet (/x) and processing specification need to be listed on suppliers' approval scope
- 2** Nadcap Accreditation Required - Only slash sheet (/x) is required to be listed on suppliers' approval scope
- 2*** GA-ASI & Nadcap Approval Required - Only slash sheet (/x) is required to be listed on suppliers' approval scope
- 3** GA-ASI Approval Only Required - Process not audited by Nadcap
- ***** Not required at this time